

INTERNATIONAL SEARCH REPORT

International Application No
PCT/CA 03/00882

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K48/00 C12N9/64 A61K38/48

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, WPI Data, PAJ, EMBASE, SEQUENCE SEARCH

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE BIOCARTA 'Online! March 2002 (2002-03) GRAMATIKOFF K.: "Angiotensin-converting enzyme 2 regulates heart function" retrieved from WWW.BIOCARTA.COM/PATHFILES/H_ACE2PATHWAY.A SP XP002258714 the whole document</p> <p style="text-align: center;">--- -/--</p>	6-18



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *8* document member of the same patent family

Date of the actual completion of the international search

22 October 2003

Date of mailing of the international search report

10/11/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Seroz, T

INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 03/00882

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WO 02 12471 A (ACTON SUSAN ;HSIEH FRANK Y (US); ROBISON KEITH E (US); MILLENNIUM) 14 February 2002 (2002-02-14) page 4, line 28,29 page 7, line 18 -page 11, line 29 SEQ ID No 1 figure 13 claims 1,12,16,21,38-40,42 examples 10-14</p>	6-22, 27-66
Y	<p>----- DONOGHUE MARY ET AL: "A novel angiotensin-converting enzyme-related carboxypeptidase (ACE2) converts angiotensin I to angiotensin 1-9" CIRCULATION RESEARCH, GRUNE AND STRATTON, BALTIMORE, US, vol. 87, no. 5, 1 September 2000 (2000-09-01), pages e1-e9, XP002207553 ISSN: 0009-7330 page 7, right-hand column, line 17-24 page 8, right-hand column, paragraph 3 -page 9, left-hand column, paragraph 1 figures 3,10</p>	6-22, 27-66
Y	<p>----- YAGIL CHANA ET AL: "Role of chromosome X in the Sabra rat model of salt-sensitive hypertension" HYPERTENSION (BALTIMORE), vol. 33, no. 1 PART 2, January 1999 (1999-01), pages 261-265, XP002258712 ISSN: 0194-911X figure 1; tables 1,2</p>	6-22, 27-66
P,X	<p>----- CRACKOWER MICHAEL A ET AL: "Angiotensin-converting enzyme 2 is an essential regulator of heart function" NATURE (LONDON), vol. 417, no. 6891, 20 June 2002 (2002-06-20), pages 822-828, XP002258713 ISSN: 0028-0836 the whole document</p>	6-22, 27-66

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Although claims 6-9, 27, 28 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound.

Although claims 31, 33, 34, 54-66 are directed to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box I.2

Claims Nos.: 1-5, 23-26

Present claims 1-5 relate to a method defined by reference to a desirable characteristic or property, namely the use of an undefined ACE2 agonist (claims 1-3 and 23-26) and the use of an undefined transgene (claims 4, 5).

The claims cover all methods, uses and compounds having this characteristic or property, whereas the application does not provide support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for such methods, uses and compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the method by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has not been carried out for claims 1-5, 23-26.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA 03/00882

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
see FURTHER INFORMATION sheet PCT/ISA/210
2. ☒ Claims Nos.: 1-5, 23-26
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 03/00882

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 0212471	A	14-02-2002	AU	8479401 A	18-02-2002
			WO	0212471 A2	14-02-2002